

REMARKS

Applicant submitted a reply to the April 19, 2005 Office Action regarding the above-identified application, on September 19, 2005. Upon further consideration, however, Applicant now requests to replace dependent claim 8 with new independent claim 16. Claims 1, 5, and 12-15 remain as amended or newly submitted on September 19, 2005, and are shown in clean form above as there are no further amendments thereof. Prompt favorable reconsideration of this application on the basis of claims 1, 5, and 12-15 and new claim 16, is respectfully requested.

The issues raised in the Action, including the patentability of claims 1, 5 and 12-15, were addressed in the September 19, 2005 response; and the relevant comments from that earlier response are incorporated herein by reference. New claim 16 generally corresponds to **original** claim 8 recast in independent form, although there have been some revisions as to language and scope. Original claim 8 depended from claim 5 and intervening claim 6, and the language of new claim 16 should generally find support in the original claims. It is therefore submitted that the added claim language is fully supported in the original application papers. Patentability of claim 16 is addressed below.

In the Action, original claim 8 was included in the two obviousness rejections under 35 U.S.C. §103. That is to say, claim 8 was rejected as unpatentable over U.S. Application Publication No. 2001/0024544 to Matsuoka et al. (hereinafter Matsuoka) in combination with U.S. Application Publication No. 2002/0105695 to DeGrange, Jr. et al. (hereinafter DeGrange). Claim 8 also was rejected as unpatentable over U.S. Patent No. 5,943,151 to Grasso et al. (hereinafter Grasso) in combination with the DeGrange publication. Applicant respectfully submits that new claim 16 patentably distinguishes over these two combinations applied against original claim 8.

Claim 6 recited a gain tilt compensator, and claim 8 added wavelength number extraction, power detection and a controller for the gain tilt compensator that estimates gain tilt between wavelengths. Both rejections of claim 8 relied on DeGrange for secondary teachings to purportedly meet the gain tilt related claim requirements. It is respectfully submitted that claim 16 patentably distinguishes over the combination of Matsuoka with DeGrange and over the combination of Grasso with DeGrange, because DeGrange does not teach the gain tilt estimation limitation of new claim 16.

Claim 16 specifies means for detecting optical power of the wavelength-division multiplexed light fed to the add drop portion and means for detecting the optical power of the dropped signal. The claim also recites means for extracting information as to number of wavelengths multiplexed in the light received at the optical amplifier, from an optical supervisory channel signal included in the received light. The functions of the gain tilt controller include estimation of the gain tilt between the wavelengths of the wavelength-division multiplexed light fed to the add drop portion. This estimation utilizes the extracted wavelength multiplex number information, the detected optical power of the wavelength-division multiplexed light fed to the add drop portion and the detected optical power of the dropped signal.

Although DeGrange teaches gain tilt compensation, it is not seen where that document suggests the power detections and the estimation of gain tilt between wavelengths using wavelength number and the two detected power levels, as recited in claim 16.

In DeGrange, the power level and gain profile of the added channels can be controlled to match the power level and gain profile of the signal passing through the add module. Cited paragraphs [0053]-[0055] suggest use of stored data values regarding power losses incurred by

optical signals passing through the various paths through the OADM module (see also paragraph [0009]). The cited paragraph [0081] of DeGrange relates to flattening of the frequency spectrum of the signal output from amp 60. The power of signal output from amp 60 is adjusted between a through light and added light shown in Fig.7, and such adjusting is preferred by DeGrange for the output amp 60 to flatten the frequency spectrum of the signal. Cited paragraphs [0075] and [0076] discuss a supervisory channel to input information as to number of channels input, dropped and added. It is respectfully submitted, however, that these cited sections of DeGrange do not suggest that the gain tilt compensator controller estimates gain tilt between wavelengths using wavelength number and the two detected power levels, as in new claim 16.

Hence, the proposed combinations of Matsuoka and Grasso with DeGrange would not satisfy all of the recitations of new claim 16, therefore the new independent claim should be patentable over the art.

Upon entry of the above supplemental claim amendment, claims 1, 5 and 12-16 are active in this application. All of those claims should be patentable over the art applied in the Action, for the reasons discussed in detail in the September 19, 2005 response or as discussed above. It is submitted that all of the claims are in condition for allowance. Accordingly, this case should now be ready to pass to issue; and Applicant respectfully requests a prompt favorable reconsideration of this matter.

It is believed that all issues raised in the April 19, 2005 Office Action have now been addressed. However, if any further issue should arise that may be addressed in an interview or obviated by an Examiner's amendment, it is requested that the Examiner telephone Applicant's representative at the number shown below.

Application No.: 10/645,870

To the extent necessary, if any, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

A handwritten signature in black ink, appearing to read "Keith E. George", written in a cursive style.

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